

SEQUENCE LISTING

<110> Walke, D. Wade
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Gerhardt, Brenda

<120> Novel Human Ion Channel Proteins and Polynucleotides Encoding the Same

<130> LEX-0208-USA

<150> US 60/221,643

<151> 2000-07-28

<150> US 60/222,503

<151> 2000-08-02

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<170> FastSEQ for Windows Version 4.0

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<212> DNA

<213> homo sapiens

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| gccagcatcc | acggctggac | agagggcaac | tataactact | acatcgagga | agacgaagac | 180 |
| ggsgaggagg | aggaccagt | gaaggacgac | ctggcagaag | aggaccagca | ggcaggggag | 240 |
| gtcaccaccg | ccaagcccga | gggccccagc | gacctccgg | ccctgtctgc | cacgctgaat | 300 |
| gtgaacgtgg | gtggccacag | ctaccagctg | gactactgcg | agctggccgg | cttccccaa | 360 |
| acgcgcctag | gtcgccctggc | cacctccacc | agccgcagcc | gccagctaag | cctgtgcgac | 420 |
| gactacgagg | agcagacaga | cgaatacttc | ttcgaccgcg | acccggccgt | cttccagctg | 480 |
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| atctgcttcg | aggagcggcg | cgacgagctg | agcgaacggc | tcaagatcca | gcacgagctg | 660 |
| cgcgcgcagg | cgcaggtcga | ggaggcggag | gaactcttcc | gcgacatgcg | cttctacggc | 720 |
| ccgcagcggc | gccgcctctg | gaacctcatg | gagaagccrt | tctcctcggt | ggccgccaag | 780 |
| gccatcgggg | tggcctccag | caccttcctg | ctcgtctccg | tgggtggcgt | ggcgctcaac | 840 |
| accgtggagg | agatgcagca | gcactcgggg | cagggcgagg | gcggcccaga | cctgcggccc | 900 |
| atcctggagc | acgtggagat | gctgtgcatg | ggcttcttca | cgctcgagta | cctgctgcgc | 960 |
| ctagcctcca | cgcccgaact | gaggcgcttc | gcgcgcagcg | ccctcaacct | ggtggacctg | 1020 |
| gtggccatcc | tgccgctcta | ccttcagctg | ctgctcgagt | gcttcacggg | cgagggccac | 1080 |
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| ggcttcacgc | tgcgccagt | ctaccagcag | gtgggctgcc | tgctgctctt | catcgccatg | 1260 |
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| ttcactacca | tccccactc | ctggtggtgg | gccgcggtga | gcactctccac | cgtgggctac | 1380 |
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| agcaagctga | aggcttatga | gtataccacc | atacgcaggg | rgaggggaga | ggtgaacttc | 1560 |
| atgcagagag | ccagaaagaa | gatagctgag | tgtttgcttg | gaagcaacc | acagctcacc | 1620 |
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<210> 2

<211> 545

<212> PRT

<213> homo sapiens

1. The first step is to identify the problem. This involves understanding the symptoms and the context in which they are occurring.

2

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Arg Glu Arg Gly Glu Val Asn Phe Met Gln Arg Ala Arg Lys Lys Ile
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Asn
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<212> DNA
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Ala Ala Ser Ala Ser Arg Ser Gly Ala Thr Ser
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| | | | | | | |
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| ggtgggtcag | gtgttgcgcg | tcatgcgct | catgcgcatc | ttccgcatcc | tcaagctggc | 1500 |
| gcgccactcc | accggactgc | gtgccttcgg | cttcacgctg | cgccagtgtc | accagcaggt | 1560 |
| gggctgcctg | ctgctcttca | tgcctatggg | catcttccact | ttctctgctg | ctgtctactc | 1620 |
| tgtggagcac | gatgtgccc | gcaccaactt | cactaccatc | ccccactcct | ggtgggtggc | 1680 |
| cgcggtgagc | atctccaccg | tgggctacgg | agayatgtac | ccagagaccc | acctgggcag | 1740 |
| gttttttggc | ttcctctgca | ttgcttttgg | gatcattctc | aacgggatgc | ccatttccat | 1800 |
| cctctacaac | aagttttctg | attactacag | caagctgaag | gcttatgagt | ataccaccat | 1860 |
| acgcagggrg | aggggagagg | tgaacttcat | gcagagagcc | agaaagaaga | tagctgagtg | 1920 |
| tttgcttgga | agcaaccac | agctcacccc | aagacaagag | aattagtatt | ttataggaca | 1980 |
| tgtggctggt | agattccatg | aacttcaagg | cttcattgct | ctttttttaa | tcattatgat | 2040 |
| tggcagcaaa | aggaaatgtg | aagcagacat | acacaaaggg | catttcgttc | acaaagtact | 2100 |
| gcctctagaa | atactcattt | tggcccaaac | tcagaatgtc | tcatagttgc | tctgtgttgt | 2160 |
| gtgaaacatc | tgaccttctc | aatgacgttg | atattgaaaa | cctgagggga | gcaacagctt | 2220 |
| agatttttct | tgtagcttct | cgtggcatct | agctcaataa | atatttttgg | acttgaaaaa | 2280 |
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<210> 6
 <211> 1458
 <212> DNA
 <213> Homo sapiens

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| tggagctgcc | gcttctgctc | tcagcaggat | gatgggcagg | acagggagag | gctgacctac | 180 |
| ttccagaacc | tgcctgagtc | tctgacttcc | ctcctggtgc | tgctgaccac | ggccaacaac | 240 |
| cccgatgtga | tgattcctgc | gtattccaag | aaccgggcct | atgccatctt | cttcatagtc | 300 |
| ttcactgtga | taggaagcct | gtttctgatg | aacctgtcga | cagccatcat | ctacagtcag | 360 |
| ttccggggct | acctgatgaa | atctctccag | acctcgctgt | ttcggaggcg | gctgggaacc | 420 |
| cgggctgcct | ttgaagtcct | atcctccatg | gtgggggagg | gaggagcctt | ccctcaggcc | 480 |
| acccgcgcag | gcccaggtac | cagtctccgt | ttctgcagag | cgcccagttc | ctcttcggcc | 540 |
| actactactt | tgactacctg | gggaacctca | tcgccctggc | aaacctggtg | tccatttgcg | 600 |
| tgttcctggg | gctggatgca | gatgtgctgc | ctgctgagcg | tgatgacttc | atcctgggga | 660 |
| ttctcaactg | cgtcttcatt | gtgtactacc | tgttgagttt | gctgctcaag | gtctttgccc | 720 |
| tgggcctgcg | agggtaacctg | tcctacccca | gcaacgtggt | tgacgggctc | ctcaccgttg | 780 |
| tcctgctgga | ggccggagat | gggtgggcctg | ctgtcgctgt | gggacatgac | ccgcatgctg | 840 |
| aacatgctca | tcgtgttccg | cttctgcgt | atcatcccca | gcatgaagcc | gatggccgtg | 900 |
| gtggccagta | cgtcctggg | cctgggtgcag | aacatgcgtg | cgtttggcgg | gatcctgggtg | 960 |
| gtgggtctact | acgtatttgc | catcattggg | atcaacttgt | ttagaggcgt | cattgtgggt | 1020 |
| cttctctggaa | acagcagcct | ggccccctgcc | aatggctcgg | cgccctgtgg | gagcttcgag | 1080 |
| cagctggagt | actgggcca | caacttcgat | gactttgcgg | ctgccctggg | cactctgtgg | 1140 |
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| ccgtgggtcca | agatctattt | tgtattgtgg | tggctgggtg | cgtctgtcat | ctgggtcaac | 1260 |
| ctgtttctg | ccctgattct | ggagaacttc | cttcacaagt | gggacccccg | cagccacctg | 1320 |
| cagccccctg | ctgggacccc | agaggccacc | taccagatga | ctgtggagct | cctgttcagg | 1380 |
| gatattctgg | aggagccccg | ggaggatgag | ctcacagaga | ggctgagcca | gcacccgcac | 1440 |
| ctgtggctgt | gcagggtga | | | | | 1458 |

<210> 7
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 <212> PRT
 <213> Homo sapiens

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| Trp Gly Gly Asp Pro Val Val Pro Trp Ser Cys Arg Phe Cys Ser Gln | |
| 35 40 45 | |
| Gln Asp Asp Gly Gln Asp Arg Glu Arg Leu Thr Tyr Phe Gln Asn Leu | |

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<211> 2905

<212> DNA

<213> Homo sapiens

<400> 8

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| cctgggtgcc | cactcttgcg | cccggagatc | ctgagtttgg | tectgtctgg | ccatgagctc | 240 |
| agcctgctgg | gaggccacag | ggagatgcag | gctgggcggc | gggtggatgg | ttccaaccgg | 300 |
| ttgggtccgg | ggcctggagc | tcagcctgtg | gggtggggac | ccagtgggtg | cctggagctg | 360 |
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| gataggaagc | ctgtttctga | tgaacctgct | gacagccatc | atctacagtc | agttccgggg | 600 |
| ctacctgatg | aaatctctcc | agacctcgct | gtttcggagg | cggctgggaa | cccgggctgc | 660 |
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